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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/729,073

12/05/2003

Rudolf J. Dams

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EXAMINER

SERGEANT, RABON A

ART UNIT

PAPER NUMBER

1711

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/17/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/729,073

Applicant(s)

DAMS ET AL

Examiner

Rabon Sergent

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See paragraph 2.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

Art Unit: 1711

1. The Election of Species requirement has been withdrawn.
2. The Information Disclosure Statements filed 4/1/2004, 12/17/2004, 2/4/2005, 2/17/2005, 6/16/2005, and 6/29/2005 have been considered. Initialed copies of the PTO-1449's are enclosed with this action.
3. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants have claimed that T, T', and T'' each independently represent -NCO or an isocyanate reactive group, wherein at least one of T, T', or T'' is -NCO; therefore, T, T' and T'' may all be -NCO groups, since there is no requirement that any of the T variables be isocyanate reactive. Therefore, where all T variables are -NCO groups, it is unclear how a reaction product of (i) and (ii) can result, since there are no isocyanate reactive groups for the isocyanate groups to react with.

With respect to the definitions of k and k' within claim 1, the use of "about" in association with the integer value of 10 renders the claims indefinite, because it cannot be determined exactly what values are encompassed by the range. In other words, it is unclear exactly what integer value is encompassed by "about 10".

With respect to component (c) within claim 1, it is unclear if the compound possesses the hydrocarbon group or reactive functional group or mixture thereof in addition to the hydrolysable groups or if the compound only possesses the hydrolysable group or the hydrocarbon group or reactive functional group or mixture thereof. Furthermore, component (c) is not mutually exclusive from component (b); therefore, it is unclear how to interpret the

Art Unit: 1711

relationship between (b) and (c), and in view of the non-mutual exclusivity of (c) with (b), it is unclear how to interpret “optionally” language.

With respect to claim 3, applicants have failed to specify a basis for the claimed weight percent value. It is unclear if the weight percent is based on the weight of the composition or solvent or some other entity.

With respect to claims 12-17, it is unclear how to interpret or determine the values of  $x$ ,  $p$ , and  $q$ , since the values are dependent on the valency of  $M$ , which differs depending on the definition of  $M$ . To avoid ambiguity, it would seem that the values should be related to the individual species of  $M$ .

With respect to claim 13, the dependency is incorrect.

With respect to claim 16, the use of the variable  $Q$  in two different applications or definitions renders the claims indefinite, because it is unclear if the two uses are required to have the same definition.

With respect to claims 19 and 21, it is unclear how to interpret the language, “partial condensation reaction” or “partial ... condensate”. It is unclear what significance or meaning is denoted by “partial”. Furthermore, in the context of a chemical reaction, it is unclear when “partial” is clearly distinguished from “complete”.

4. Claims 1-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 1711

Applicants have failed to provide enablement for the production of reaction products where the fluorinated polyether compound and the silane compound have only isocyanate functional groups, yet applicants' claims provide for this permutation. Furthermore, applicants' claims encompass fluorinated polyether compounds wherein T and T' are defined in such a manner that one compound may contain an isocyanate group and an isocyanate-reactive group; however, applicants have failed to provide enablement for the use of such a compound. Absent guidance concerning how such compounds could be used and such reaction products could be produced, one of ordinary skill in the art would be unable to practice the invention without resorting to undue experimentation. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1711

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Moore et al. ('272).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Moore et al. disclose fluorinated polyether silane compositions and their application to substrates. Moore et al. further disclose that the fluorinated polyether silanes may be produced by reacting isocyanate reactive perfluorinated compounds that correspond to applicants' claimed fluorinated polyether compound with isocyanate functional silane compounds that correspond to applicants' claimed silane compound. The reference further teaches that solvents, acid or base catalysts, and hydrolysable compounds, that correspond to applicants' claimed components (b)

Art Unit: 1711

and (c), are utilized within the compositions. See abstract; columns 3-5; column 7, lines 48+; columns 8-11; and examples FESG-9 and FESG-10 within Table 1.

9. Claims 1-12, 14, 15 and 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 02/30848.

The reference discloses fluorinated polyether silane compositions and their application to substrates. The reference further discloses that the fluorinated polyether silanes may be produced by reacting isocyanate reactive perfluorinated compounds that correspond to applicants' claimed fluorinated polyether compound with isocyanate functional silane compounds that correspond to applicants' claimed silane compound. The reference further teaches that solvents, acid compounds, and hydrocarbon silanes, such as octadecyltrimethoxysilane, may be utilized within the compositions. See pages 4-9 and especially line 27 of page 11 and examples B and D within page 12. The position is taken that the disclosed hydrocarbon silanes meet applicants' components (b) and (c).

10. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/30848 in view of Brown ('624) or Matsumura et al. ('369) or WO 99/03941 or WO 99/33927.


As aforementioned within paragraph 9, WO 02/30848 discloses solvent containing fluorinated polyether silane reaction products which are considered to meet those claimed; however, with the exception of disclosing hydrocarbon silanes, the primary reference is largely silent with respect to the use of applicants' specifically claimed components (b) and (c) within the fluorinated polyether silane composition. However, the use of compounds that correspond to applicants' claimed (b) and (c) components as crosslinkers and adhesion promoters within silane functional coating compositions, including those containing fluorination, was well known at the

Art Unit: 1711

time of invention. This position is supported by the teachings of Brown at column 20, lines 25-44, Matsumura et al. at column 1, line 43 and columns 2-8, abstract of WO 99/03941, and page 19, line 9 through page 20, line 5 of WO 99/33927. Since it has been held that it is *prima facie* obvious to use a known compound for its art recognized purpose, the position is taken that it would have been obvious to utilize the claimed hydrolysable compounds (b) and (c) in their art recognized capacity as crosslinkers and adhesion promoters for silane coating compositions, so as to arrive at the instant invention. *In re Linder*, 173 USPQ 356. *In re Dial et al.*, 140 USPQ 244.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

R. Sergent  
January 6, 2007

  
RABON SERGENT  
PRIMARY EXAMINER